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(54) A product dispensing system configured to show an electronic slide show

(57) A product dispenser 30, typically for fuel, includes a visual display 40 connected to a computer 19 within a fuel station building. The computer 19 is programmed to transmit for viewing on the display 40 a slide show which may incorporate advertising material, an-

nouncements or other useful information that customers fuelling their vehicles may want to know. The computer 18 may download images from a central remote location 14 so that all fuel stations of a particular company are showing the same images.

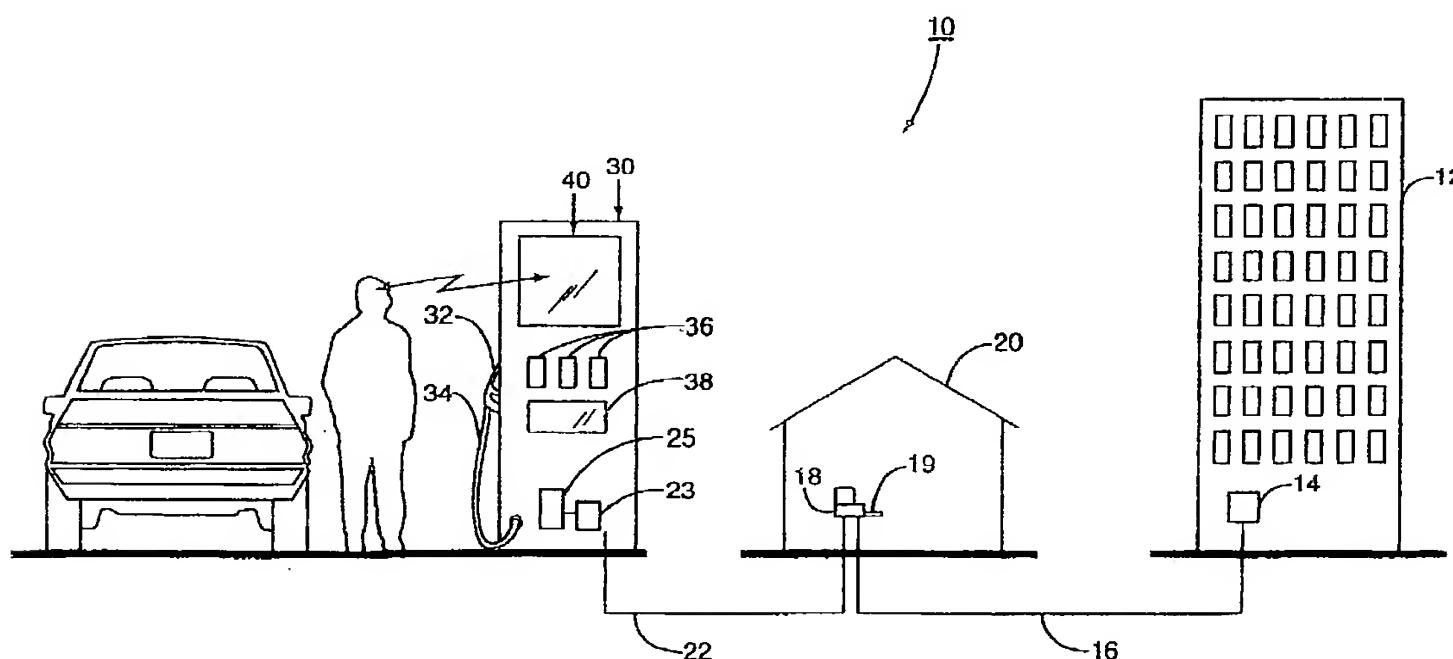


FIG. 1

Description

[0001] This invention is directed to a product dispenser, and particularly but not exclusively a fuel dispenser, incorporating a visual display which allows the presentation of a slide show to a customer dispensing fuel.

[0002] Vehicle fuelling stations have made great progress in their efforts to automate and expedite fuel dispensing transactions. The introduction of "pay at the pump" and other similar technologies allows customers to complete transactions without entering the fuel station building or interacting with the fuel station attendants. The term "pay at the pump" loosely includes technology such as credit card or debit card readers, together with phone lines to secure payment from the centralized card processing authorities, coupled with automatic pump authorization. Other pay at the pump technologies include cash acceptors and change dispensers which work like vending machines and most recently, radio frequency communications techniques, which include a transponder which communicates with the fuel dispenser to authorize a fuel purchase. The problem with these technological improvements is that customers are no longer forced to enter the building and expose themselves to impulse purchase of items such as sweets or drinks. The ability of customers to effectively bypass the temptation of the impulse items reduces the income generated by the convenience store. Thus, after spending efforts developing technology which allowed the customer to bypass entering the building, there is now a desire to develop technology which tempts customers back into the building, or facilitates transactions for impulse items purchased from an "intelligent" or multifunction fuel dispenser.

[0003] Additionally, with the advent of intelligent fueling, customers now have the opportunity to use the fuel dispenser to order car washes, Quick Serve Restaurant food, convenience store products and other goods and services. However, there is little opportunity to advertise these goods and services in the present fuel environments, and the casual fuel customer may be oblivious to the purchasing opportunities which confront him. Thus, there is a need to alert customers to the purchasing opportunities available to the customer at the pump. One such effort to inform the customer uses in scrolling bars of text. These may be LEDs, CRT or LCD displays controlled to form letters or scrolling messages. With the assistance of these scrolling messages, attendants are able to alert the customers of current specials, and the messages can be updated by reprogramming the computer. It is hoped that these specials will intrigue the customer enough to bring him into the building where the usual impulse purchasing occurs. Unfortunately, these scrolling messages must be reprogrammed every time it is desired to change between messages, for example from a breakfast special to a lunch special.

[0004] Another technique developed by fuel station

attendants comprises using an audio system to broadcast advertisements to the forecourt of the fuel station to alert customers of specials or items for sale within the building. There are signs that the industry is making efforts to expand this sort of audio system into an audio/visual system or a true multimedia system with the possibility of displaying web content at the fuel dispenser.

While these techniques do convey the desired information to the customer, they do little to improve the chance of an impulse purchase. Additionally, each addition to information conveying systems adds a layer of complexity that must be mastered by the fuel station attendants. The scroll bars must be programmed; the content of the multimedia system must be programmed and so on.

15 This burden may be extremely high, especially for fuel station attendants who are not particularly computer literate.

[0005] In another field of study, computer users have developed "slide shows" whose images and image order are dictated by the computer programmer. These slide shows can be combinations of text and graphics as desired or needed. While traditionally reserved for art-like presentations, slide shows have expanded into business presentations and other locations where sequences of images are desirable.

[0006] What is lacking in the prior art is the ability and means to show a slide show integrated into the fuel dispenser. The presentation of visual images coupled with text representing the current sales is believed to be a better inducement to customers to enter the store and purchase impulse items. Furthermore, the solution must simplify the job of the fuel station attendants so that they may focus on their primary job - selling fuel.

[0007] According to the present invention there is provided a product dispensing system comprising a product dispenser configured to display an electronic slide show, said product dispenser comprising:

- 40 a) a product delivery system configured to deliver product to a customer;
- b) a display, said display positioned on said dispenser; and
- c) a control system configured to control said product delivery system and show an electronic slide show on said display, said slide show formed from a plurality of electronic slides, each of said slides formed from at least one template.

[0008] The above described deficiencies in the prior art are solved by the present invention providing a visual display capable of showing images and text on product dispenser and particularly a fuel dispenser. The visual display is communicatively connected to a computer located within the fuel station building. The computer is programmed to store a series of templates in its memory. Each template preferably includes text and images. Each template can include fixed fields, which are permanent parts of the template, and relatively static or dy-

namic fields, which may be selectively programmed by a fuel station attendant to form electronic slides. For example, one slide may have a picture of a hamburger and a dollar sign stored in fixed fields and then a value corresponding to the current price of the hamburger in a relatively static field. Slides are preferably related to current items or services for sale at associated facilities, but do not have to be. Other slides could include weather updates, road condition updates, news items or the like.

[0009] By implementing such a slide show through the standard fuel dispenser display, the fuel station takes advantage of the fact that the customer's attention is already focused on the area where the advertising will take place. Other forms of signage do not have this advantage since they require the customer to divert their attention away from the screen that has directed them through the transaction.

[0010] The use of a computer allows the slides to be arranged into a slide show, which is then shown on the visual displays of the fuel dispensers. The slide shows can change according to the time of day if desired, for example, breakfast specials in the morning, lunch or snack specials the rest of the day. This is a simple programming step for the computer programmer. Additionally, the computer may be connected to a central office computer, which controls all the computers owned by the company. This may be accomplished via the Internet, dedicated lines or an equivalent communications link. The purpose of this particular aspect of the invention is so that all the fuel stations provide uniform messages, templates or slides. This may be desirable from a corporate standpoint in terms of policing the use of a trademark or for other reasons. Systems that rely solely on information that is downloaded from an external host are subject to failure when the external connection is lost. The present system has the ability to program the advertising both locally and remotely, and thus, has a "fall back" operating mode if this external connection fails.

[0011] The invention will now be described by way of example only, with reference to the figures of which:

Figure 1 shows a schematic view of the system of the present invention;
 Figure 2 depicts a flow diagram of the preferred software and its communication connections;
 Figure 3 demonstrates a plurality of templates prior to programming as slides;
 Figures 4-6 illustrate example templates formed into slides for use by the present invention;
 Figure 7 pictures a schematic view of a plurality of slides formed into a slide show;
 Figure 8 features a flow diagram of the overall functioning of the embedded software;
 Figure 9 shows a flow diagram of the template creation step of the embedded software;
 Figure 10 depicts a flow diagram of the slide creation step of the embedded software; and

Figure 11 demonstrates a flow diagram of the slide show creation step of the embedded software.

[0012] Referring now to Figure 1, this shows a slide show system 10 including a central office building 12 with a central computer 14 located therein. The central computer 14 is communicatively connected by a communications network 16 to at least one fuel station computer 18, located within a fuel station building 20. The fuel station computer 18 is communicatively connected by a dedicated network 22 to a fuel dispenser 30. The fuel dispenser 30 includes a conventional nozzle 32, coupled to the fuel dispenser 30 by a conventional hose 34. A plurality of buttons 36 allow fuel grade selection, while a conventional monitor 38 displays information such as gallons pumped, price for fuel already pumped and which grade was selected. The fuel dispenser 30 also includes a visual display 40, which is preferably capable of transmitting colour images like a television screen or computer monitor. The fuel dispenser 30 includes a control system 23 that may be a microprocessor or the like with an attached memory 25.

[0013] The communications network 16 may be the Internet or it may be a proprietary network, wireless or land-based, which allows communication between the central computer 14 and the fuel station computer 18. The dedicated network 22 is preferably a conventional data line for communication strictly between the fuel dispenser 30 and the computer 18. The network 22 could be formed from a twisted pair line, other similar conductors, or it could be wireless if desired. While both computers 14 and 18 are referred to as computers, it should be appreciated that any comparable programmable machine will suffice to fit within the scope of the present invention.

[0014] Turning now to Figure 2, the computer 18 is explained in greater detail. The computer 18 preferably includes software 42, although for the purposes of the present invention an equivalent structure would be one hard wired to do the same functions. The software 42 includes a communications module 44, which handles the communications from the central computer 14 and to the fuel dispensers 30 (only one shown). The software 42 also includes a command module 46 which interfaces with a keyboard 19 or other similar user interface (Figure 1) and the communications module 44 as well as a memory module 48. The communications module 44 also can communicate with the memory module 48. Stored within the memory module 48 is a plurality of templates 50 as well a number of subroutines which facilitate the present invention. Each template 50 could be stored in the computer 18 as a data file or the equivalent whose data is read, formatted and transmitted to the fuel dispensers 30 for viewing on visual display 40.

[0015] Sample templates 50 are seen in Figures 3-6. A plurality of templates 50A-50F are located within a memory module either in the computer 14 or the computer 18. Each template 50 forms the basis for a "slide"

for the slide show to be shown on visual display 40. The template 50 is an image which may be broken into fields 51, including fixed fields which do not change after the template is created, relatively static fields, which may change from show to show if reprogrammed and dynamic fields which provide approximate real-time information, which is updated continuously. Dynamic fields may also provide information which is updated during the presentation of a given slide, or between presentations of the slide. It should be understood that the number, position, size and shape of the fields 51 may be varied at the time of programming according to the desires of the programmer.

[0016] To better understand the templates 50 and their transition to slides, Figures 4-6 show templates 50 that have been programmed into slides. In Figure 4, images 52 and 54 and text 56 are fixed fields, as are dollar signs 58. Prices 60 and 62 are located within the relatively static fields. Temperature scroll bar 64 is a dynamic field with the towns' temperatures updated continuously from a source, such as the corporate headquarters computer 14, a local thermometer or an Internet site.

[0017] In Figure 5, image 66 is in a fixed field while text 68 and 70 are relatively static, only changing when reprogrammed. In Figure 6, images 72 and 74 as well as text 76 are fixed, while text 78 and price 80 are relatively static. It should be appreciated that a dynamic field could be added to either Figure 5 or Figure 6 if desired.

[0018] Figure 3, as well as Figures 4-6, show several example arrangements of fields; it should be appreciated that the number and placement of fixed and non-fixed (dynamic and relatively static) fields can be varied as desired or needed. It should particularly be noted that while the fields of Figures 4-6, which include images (e. g. 52, 54) are shown as fixed fields, it is possible to make image fields relatively static fields. Templates 50, and particularly the dynamic fields therein, could also be directed to weather bulletins, travel advisories, temperature updates and the like as well as advertisements as to what is being sold within the fuel station building 20. A dynamic field may also show real time or current information, for example, streaming audio/video, information, current stock quotes, etc. The source of this real time information may be an audio/visual source, a broadcast channel, the Internet or the like.

[0019] A slide, as used herein, is defined to mean a template 50 in which the fields have been defined and filled. Specifically, the non-fixed fields, or the relatively static and dynamic fields, are programmed to display information, either as text or graphically, appropriate to the field. It should be appreciated that multiple slides can be created from the same template 50 through the substitution of different information into the non-fixed fields.

[0020] Each of the templates 50 seen in Figures 4-6 is actually a slide by virtue of the fact that the fields have been programmed.

[0021] A slide show, for the purposes of the present

invention, is a subset of the total available number of slides, preferably five, linked together to be seen in a particular order and for a particular amount of time on the display 40 of the fuel dispenser 30 without human intervention once the slide show has begun. Five slides are preferred as a good trade off between memory and number of messages desired to be conveyed to a customer, however, variations in the number of slides used are within the scope of the present invention. The slide show lasts for some period of time T. Each slide within the slide show has a screen display time t_n , which the fuel dispenser 30 counts down as it displays that particular slide on the visual display 40. Then the fuel dispenser 30 will display the next slide in the slide show on display 40. This will continue until the last of the slides in that particular slide show have been shown, at which time the slide show preferably repeats or another slide show begins. A schematic presentation of this is seen in Figure 7, where several slides are arranged in a sequence determined by the programmer. Specifically, the slide show 90 includes template 50A (Figure 3), which has been used three times (50A, 50A', and 50A'') followed by the template 50C and finally template 50F. The fields 51 have been filled in for all the slides and each slide is assigned a screen display time t_n . The total slide show takes T seconds.

[0022] In order to have the slides for a slide show as defined above, several steps must be taken as seen in the flow diagram of Figure 8. The templates 50 must first be created (block 100). The template creation is better understood with reference to the flow chart of Figure 9. Initially, the computer programmer begins template creation (block 200). The programmer, stepping through the preprogrammed software package 42, selects the number of fields (block 202). Each field is then positioned on the template (block 204). The size of the field is determined (block 206) as is the shape of the field (block 208).

[0023] Finally, each field is assigned a type, namely fixed, relatively static, or dynamic (block 210). The software asks if there are any fixed fields (block 212). If the answer is yes, then the programmer assigns the appropriate text or image to the fixed field (block 214). The software 42 preferably includes a number of frequently used images, such as a hamburger, a six-pack, a bag of ice or the like, preprogrammed therein. Approximately one hundred (100) images are preferably provided for use in building slides from the templates 50 in the memory module 48. These one hundred images reflect a reasonable and manageable compromise between memory constraints and providing a nice selection of images. This serves an additional purpose - by providing preselected images, the programmers are less likely to create images, which are non-harmonious with advertising campaigns or the like developed by the central office 12. The attendants may also create their own images and templates. A conventional digital camera could be used for example to upload images into the memory module

48 for later use by a template 50. Text can be entered through the use of a conventional keyboard or the like.

[0024] The images may be digital pictures or sketches of items as desired. Appropriate formats include, but are not limited to TIFF, BMP, DXF, DWG, GIF, EMF, WMF, PDF, JPEG, CDR or the like. Since it is highly likely that any fixed field will be filled with a commonly used image, most fixed fields can be filled with these preprogrammed images. If the answer to block 212 is no, or all of the fixed fields have been assigned, the software asks if enough templates have been created (block 216). If the answer is yes, then the subroutine for template creation ends (block 218). If the answer is no, then template creation resumes at block 200.

[0025] In one embodiment, the templates 50 are created at the central computer 14 and transmitted to the fuel station computer 18 over the network 16. In another embodiment, the templates 50 are created at the fuel station 20, and more particularly on the fuel station computer 18. As a result, the templates 50 could initially be resident in the memory of computer 14 or of computer 18. The templates 50 must be further programmed to form slides. This step can be performed at either the central office 12 or the fuel station computer 18, so the templates 50 must be passed to the slide programmer (block 102, Figure 8) wherever he or she may be located. It is also possible that the template creation software could be distinct from the slide creation software discussed below.

[0026] The next step in the process is the creation of the slides (block 104). The creation of slides will be better understood upon reference to Figure 10. The slide programmer selects a template to turn into a slide (block 250). Each non-fixed field should be filled. It is preferred to fill to relatively static fields first (block 252). The software 42 asks if the memory module has the desired image (block 254). If the answer is yes, or the particular field is text, then the programmer provides a link to the appropriate image or types in the appropriate text (block 256). If the answer to block 254 is no, then the software 42 invites the programmer to create an image (block 258). This may be done with a digital camera, an appropriate art program or the like as desired. As noted above, the software 42 is preferably configured to accept a number of different formats. Once created, the image is stored in memory (block 260).

[0027] With the relatively static field filled, the software 42 asks if that was the last relatively static field (block 262). If not, the process repeats until a yes is returned at block 262. When a yes is returned, the software 42 then causes the dynamic fields to be linked to a source of information which updates the dynamic field either periodically or continuously (block 264). That is, the computer 14 could provide instructions so that the computer 18 would poll a thermometer for temperature readings, or log on to the Internet to get a weather report or the like as desired or needed. Other arrangements can be made for the computer 14 to poll a remote source

as needed or desired and pass this information to the local computer 18, but such is not preferred. The software 42 queries whether the last dynamic field has been linked (block 266). If not, the process repeats. If yes, then the process ends (block 268).

[0028] The slide programmer can program as many slides as he or she sees fit. It should be noted that a particular template 50 can be used multiple times to create different slides through the substitution of different images, text or dynamic links into the appropriate fields 51. Returning now to Figure 8, with a number of slides created, the programmer can now create slide shows (block 106).

[0029] The creation of slide shows is better understood by reference to Figure 11, where block 106 is expanded. The number of slides in the show is selected, and optionally a total run time T (block 300). A slide is selected (block 302) and assigned to a slot within the slide show (block 304). Each slide is preferably given a display time (block 306) which corresponds to t_n . The parameters can be varied between the slides. For example, one slide may be shown for thirty seconds, and one for fifteen seconds. The software 42 subsequently asks if this is the last slide in the show (block 308). If not, the process repeats. If yes, the process ends (block 310). Figure 7, described above, shows a completed slide show 90 with the slides inserted into the appropriate slots. It should be appreciated that the slide show creation can be a distinct program from the slide creation program, but such is not preferred.

[0030] Slide shows are preferably customized to run at distinct times during the day as will be explained further below. The programmer having completed the slide show, assigns it a time slot within the day (block 108, Figure 8). If only one slide show is to be shown, it is acceptable for the time slot to be the entire day, or some fraction thereof.

The central computer 14 may create the actual slide show. This is appropriate where a central office 12 wishes to make a plurality of fuel stations 20 present the same slide shows. Once the slide show is created at the central computer 14, it may be downloaded to a plurality of fuel stations 20 for display on the dispensers 30 (block 110). Once at the fuel station 20, the slide show is downloaded or sent to the dispensers 30 for the viewing by the customer (block 112).

[0031] In another embodiment, the templates 50 are downloaded from the central computer 14 and then selected and programmed into slides and slide shows at the fuel station computer 18. Again, as noted above, the non-fixed fields must be programmed to have content. Images and/or text are assigned to the relatively stationary fields and links are provided for the dynamic fields from which information can be retrieved in approximately real time fashion. Where the dynamic fields are related to things outside the control of the attendants, for example weather bulletins, the fuel station computer 18 could be programmed to retrieve the desired information

from an appropriate source through the Internet or the like as needed. Allowing the fuel station 20 to select the templates 50 and fill the templates 50 to create slides allows the fuel station to customize sales or sell regional specialties without the central computer 14 having to create unique slide shows for each fuel station.

[0032] The slide show, regardless of its creation site may be stored in the memory 25 of the fuel dispenser 30 and called up by the control system 23. Alternatively, the computer 18 may store the slide show and download to the fuel dispenser 22 at any desired time. In this case, the control system 23 acts to pass the slide show through to the display 40. Still a third option would be to store the slide shows at the central computer 14 and broadcast the slide shows to the computers 18 via the network 16. The last alternative is not preferred due to the demands such an arrangement would place on the network 16, but is possible.

[0033] The slide show is preferably programmed to show on the visual display 40 while a customer dispenses fuel through the hose 34 and the nozzle 32. That is, the slide show begins when the customer begins dispensing fuel and ends when the nozzle 32 is returned to its rest. Alternatively, the slide show may begin when the customer finishes the fueling transaction, and end when the customer begins a fueling transaction. Still another embodiment would allow the slide show to run continuously regardless of the beginning or ending of a fueling transaction. This aspect may be controlled through the appropriate programming.

[0034] Parameters may also be varied between fuel dispensers. This may be appropriate where slide shows are directed at different audiences. For example, dispensing fuel to a car is quicker than dispensing fuel to a tractor-trailer so the shows may be much quicker for the car. Additionally, different items may be displayed at a diesel-only dispenser as opposed to a fueloline-only dispenser. For example, a CB might be advertised to a trucker at a dedicated diesel dispenser, but not a minivan at a fueloline-only dispenser.

[0035] As noted above, another aspect of the present invention is that the slide shows could change with the time of the day. For example, the fuel station computer 18 or the central computer 14 could instruct the fuel dispensers 30 to switch between slide shows at certain times. Thus, a morning slide show could feature templates directed towards traffic reports, breakfast menu items available in the fuel station building and a weather report for the day. Later, the slide show could change to focus on snacks, drinks and road conditions or the like. An evening slide show could include templates directed towards traffic reports, tomorrow's weather forecast and other menu items more appropriate to the evening hours. There are preferably at least three, and more preferably four slide shows, each of five templates 50 which rotate throughout the day automatically, eliminating the need for an attendant to reprogram the computer 18. The preferred show times are from 6 AM to 10 AM;

10 AM to 2 PM; 2 PM to 12 AM and 12 AM to 6 AM, representing a morning show, a lunch show, an afternoon/evening show and a late night show. Variations in the times are within the scope of the present invention.

5 This corresponds to block 112 in Figure 8.

[0036] The station may also be given a level of control that allows the operator to enable or disable the slide show at will. This "on-the-fly" feature would enable the operator to temporarily disable the presentation of the show. In the event that an advertised item is no longer available because it is sold out, this option prevents customer confusion or misunderstandings.

[0037] In contrast to the prior art scrolling messages, the present invention allows slide shows to automatically change with the time of day according to a predetermined schedule. Furthermore, the slide shows are not intended to perform the financial transactions, rather they are designed to induce customers to enter the fuel station building and be exposed to impulse items.

[0038] As used in the appended claims, the word "a" does not imply a singular entity, but rather means "at least one".

[0039] The present invention may, of course, be carried out in other specific ways than those herein set forth without departing from the spirit and essential characteristics of the invention. The present embodiments are therefore, to be considered in all respects as illustrative and not restrictive, and all modifications within the scope of the appended claims are intended to be embraced therein.

Claims

- 35 1. A product dispensing system comprising a product dispenser (30) configured to display an electronic slide show, said product dispenser comprising:
 - 40 a) a product delivery system configured to deliver product to a customer;
 - b) a display (40), said display positioned on said dispenser (30); and
 - c) a control system (23) configured to control said product delivery system and show an electronic slide show on said display, said slide show formed from a plurality of slides, each of said slides formed from at least one template (50).
- 50 2. The system of claim 1 wherein said at least one template (50) includes at least one Field (51).
- 45 3. The fuel dispenser of claim 1 or 2 wherein said at least one template includes a plurality of electronic fields (51).
- 55 4. The system of claim 3 wherein said fields (51) are arranged on said template for aesthetic appear-

ance.

5. The system of claim 2, 3 or 4 wherein at least one field is selected from the group of fields comprising: fixed, relatively static and dynamic.

6. The system of claim 5 wherein said control system (23) is configured to gather information for said dynamic field.

7. The system of claim 5 wherein said control system (23) provides real time updates for said dynamic field.

8. The system of claim 6 or 7 wherein said control system updates said dynamic field in between showings of the slide containing the dynamic field.

9. The system of claim 5, 6, 7 or 8 wherein said fixed field is filled during the construction of said at least one template (50).

10. The system of claim 5, 6, 7, 8 or 9 wherein said relatively static field is filled during the construction of said slide.

11. The system of any one of claims 6 to 10 wherein said dynamic field is filled during the construction of said slide.

12. The system of any preceding claim wherein said slides are formed from a plurality of templates (50).

13. The system of any preceding claim wherein said slides are shown sequentially.

14. The system of claim 13 wherein each slide is to be programmed with a display time corresponding to the length of time the slide is shown on said display.

15. The system of claim 14 wherein said display times are non-uniform.

16. The system of any preceding claim wherein said control system is adapted to show a plurality of slide shows.

17. The system of claim 16 wherein each of said plurality of slide shows is shown for a period of time during a twenty-four hour period.

18. The system of any preceding claim wherein said slide show begins at the beginning of a dispensing operation.

19. The system of any one of claims 1 to 17 wherein said slide show begins when a customer completes a dispensing operation.

5. The system of any one of claims 1 to 17 wherein said slide show is shown continuously.

10. The system of any preceding claim wherein said control system (23) is located within said product dispenser (30).

15. The system of any one of claims 1 to 20 wherein said control system transmits said slide show to said display from a source remote from the dispenser.

20. The system of any preceding claim for dispensing fuel, wherein said product dispenser is a fuel dispenser (30).

25. A method of creating a template for a slide suitable for use in the slide show of the product dispensing system of any preceding claim, said method comprising the steps of:

- a) creating a template data file;
- b) creating at least one field in said template data file; and
- c) storing said template data file in memory for later retrieval to create a slide therefrom.

30. The method of claim 24 wherein creating at least one field in said template data file comprises the step of positioning a field within an associated visual display of the template data file.

35. The method of claim 24 or 25 wherein creating at least one field in said template data file comprises the step of sizing a field within an associated visual display of the template data file.

40. The method of any one of claims 24 to 26 further comprising the step of creating a plurality of fields within said template data file.

45. A method of creating slides for use in a slide show run of the product dispensing system of any one of claims 1 to 23, said method comprising the steps of:

- a) receiving at least one template data file including a plurality of fields, different ones of said fields selected from the group comprising: relatively stationary and dynamic;
- b) filling said fields; and
- c) storing said filled template as a slide distinct from said template, said slide configured to be assembled into a slide show for display on a product dispenser.

50. The method of claim 28 wherein filling said fields comprises the step of assigning a link to any existing dynamic field.

30. The method of claim 28 wherein filling said fields comprises the step of assigning to any existing relatively stationary fields, data selected from the group comprising: text and images.

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31. A computer readable medium containing software adapted to implement the method of any one of claims 24 to 30.

32. A medium as claimed in claim 31 wherein a said 10 software is adapted to accept a user input to:

- a) define a template data file having an associated visual output;
- b) create a field within said template; and 15
- c) export said data file for creation of slides for use in a fuel dispenser.

33. The computer readable medium of claim 32 wherein 20 said software is further adapted to accept a user input to assign a location to said field within said associated visual output.

34. The computer readable medium of claim 32 or 33 wherein said software is further adapted to accept 25 a user input to create a plurality of fields within said template.

35. The computer readable medium of any one of claims 32 to 34 wherein said fixed fields are filled 30 prior to export said data file.

36. A computer readable medium as claimed in claim 31 including software adapted to accept user input to: 35

- a) Receive a plurality of slide data files;
- b) Arrange a subset of said plurality of slide data files into a selected order;
- c) Define display times associated with each of 40 said slides in said subset; and
- d) Save the arrangement as a slide show adapted to be shown on a product dispenser.

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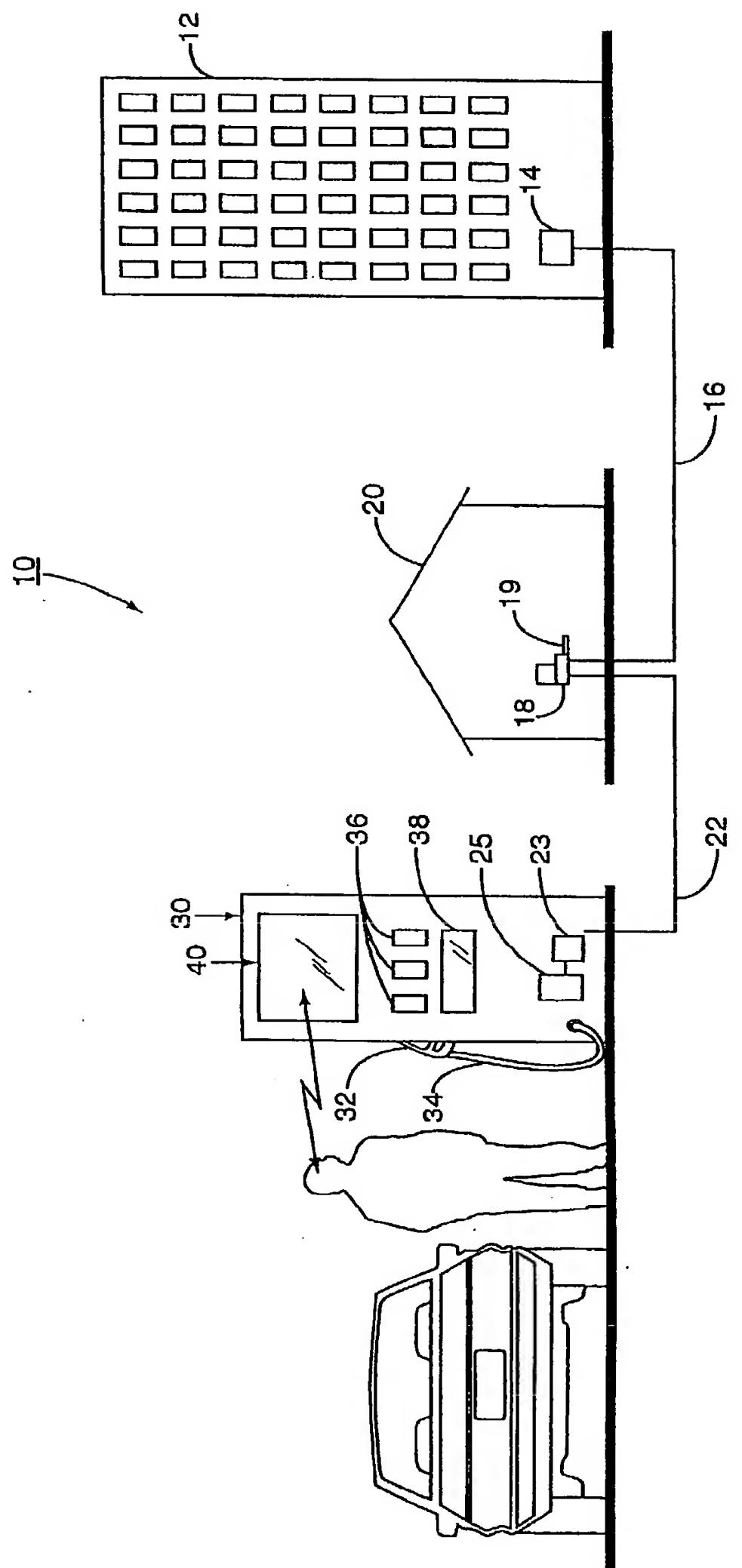


FIG. 1

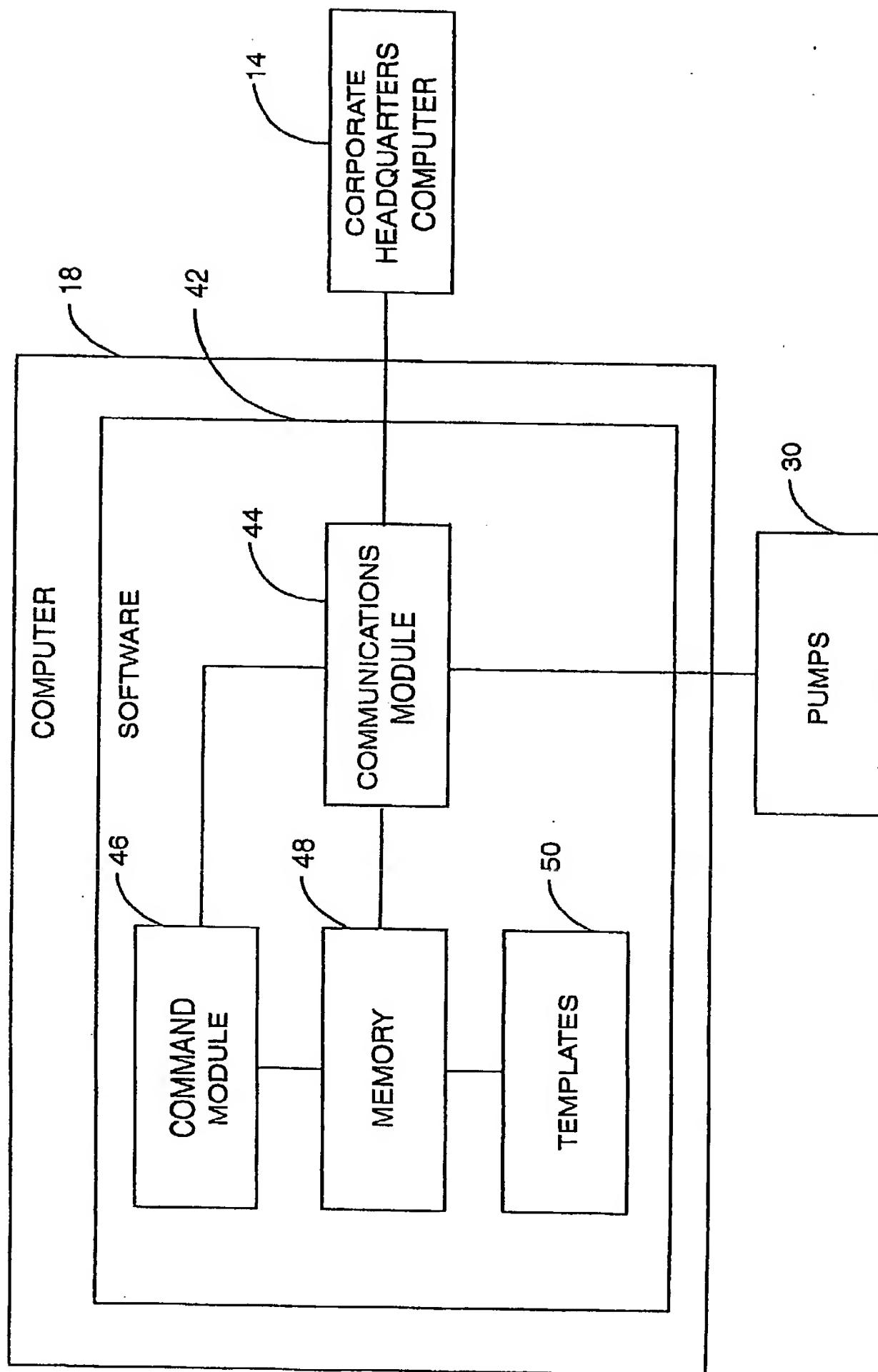


FIG. 2

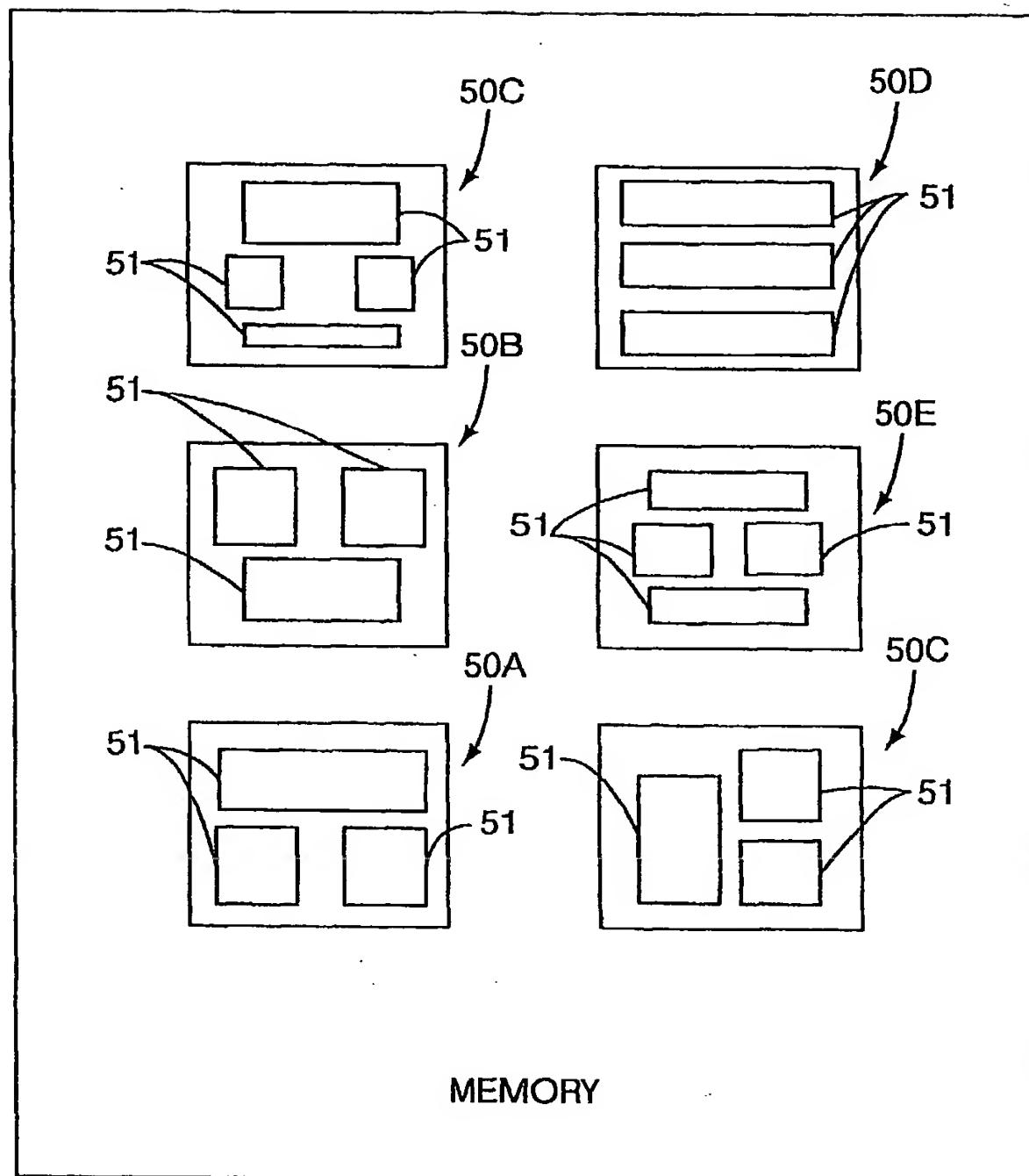


FIG. 3

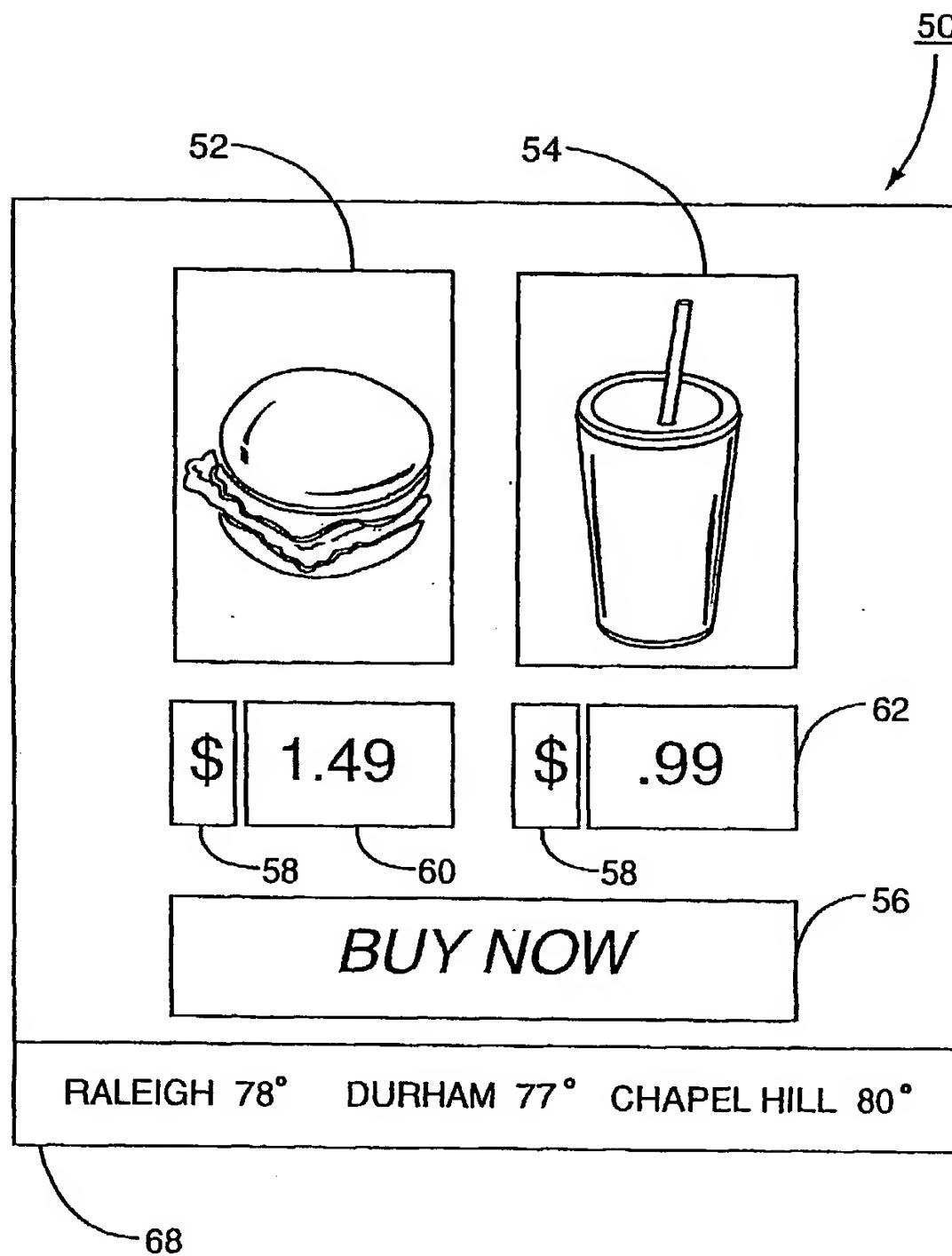


FIG. 4

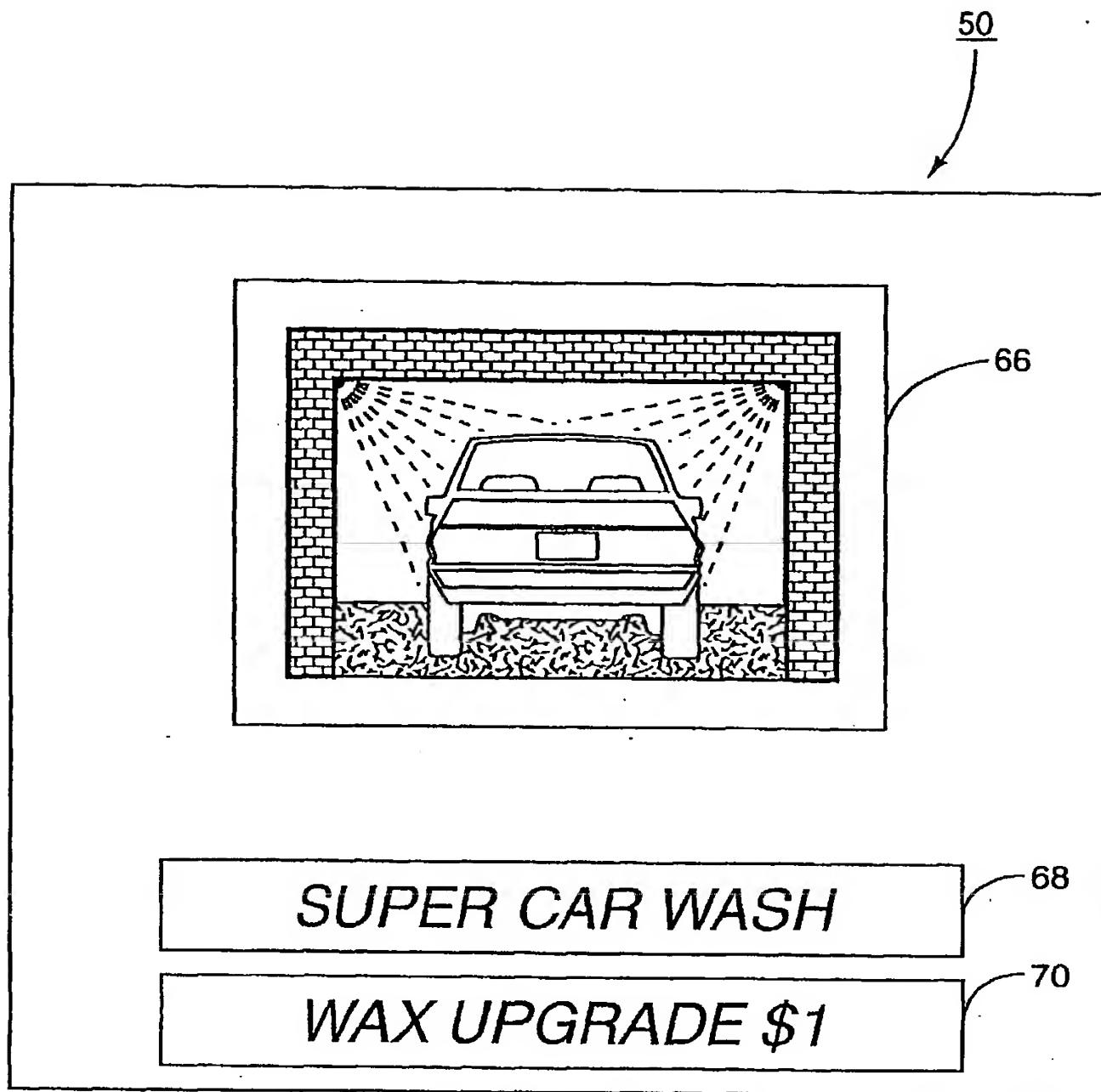


FIG. 5

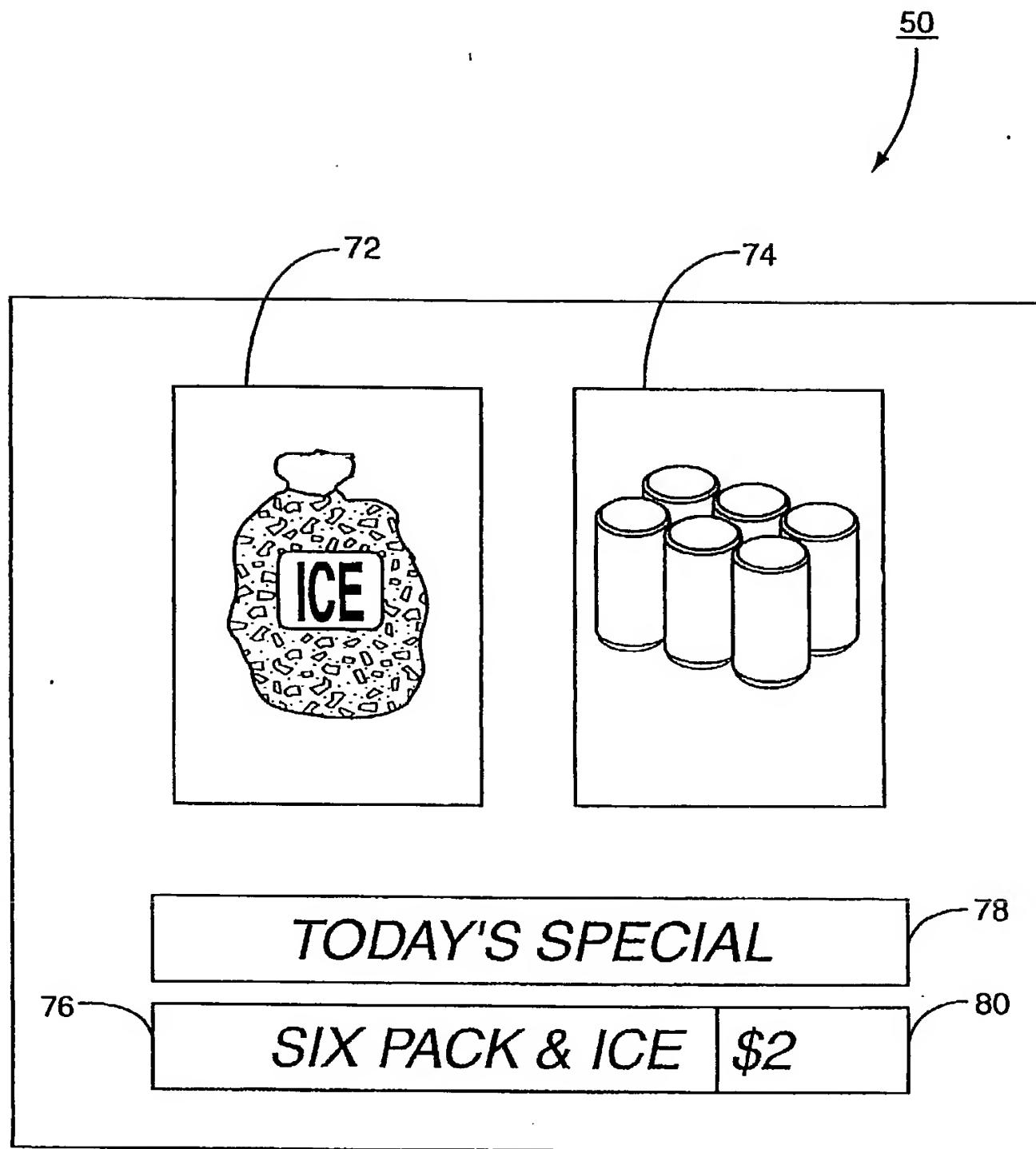


FIG. 6

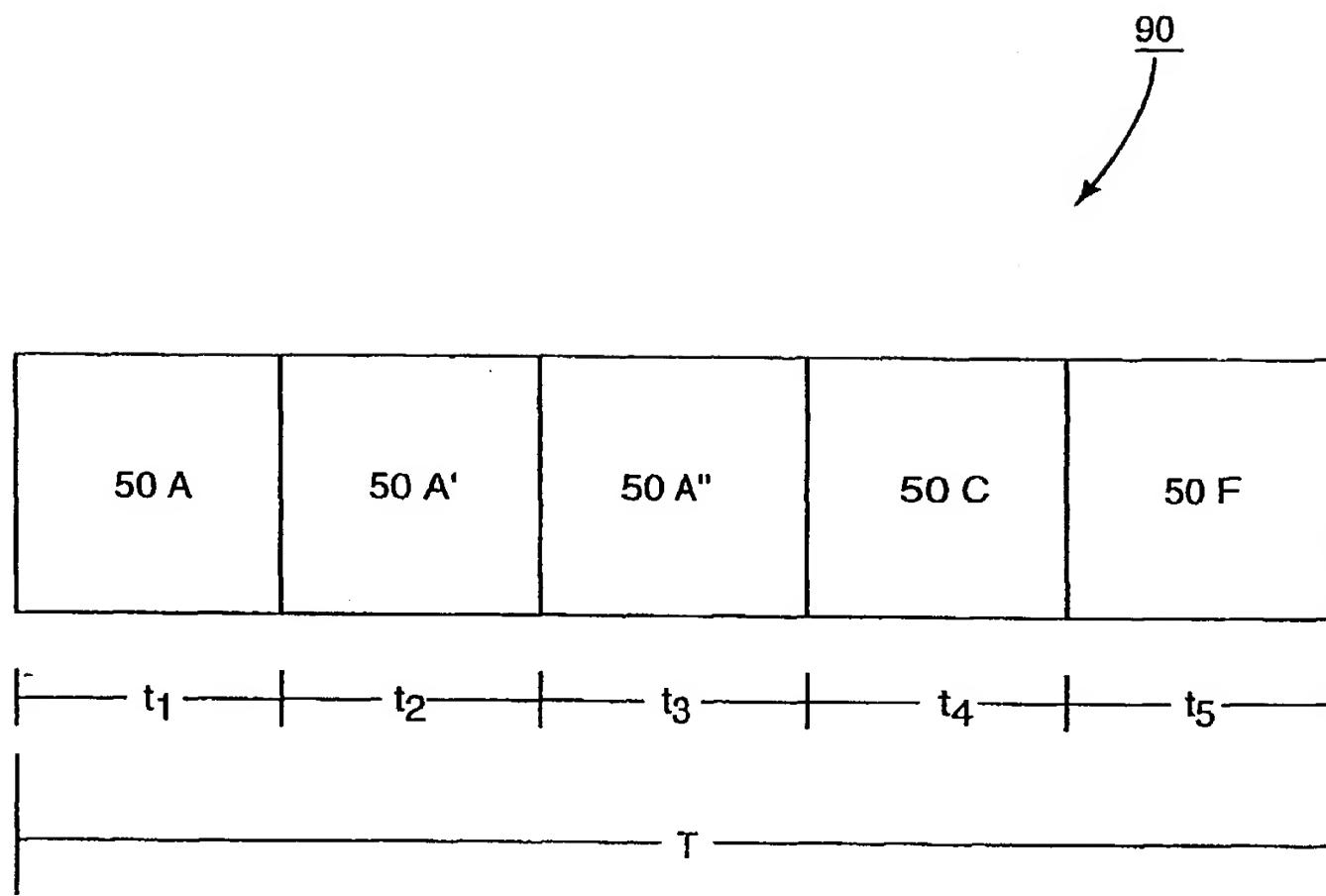


FIG. 7

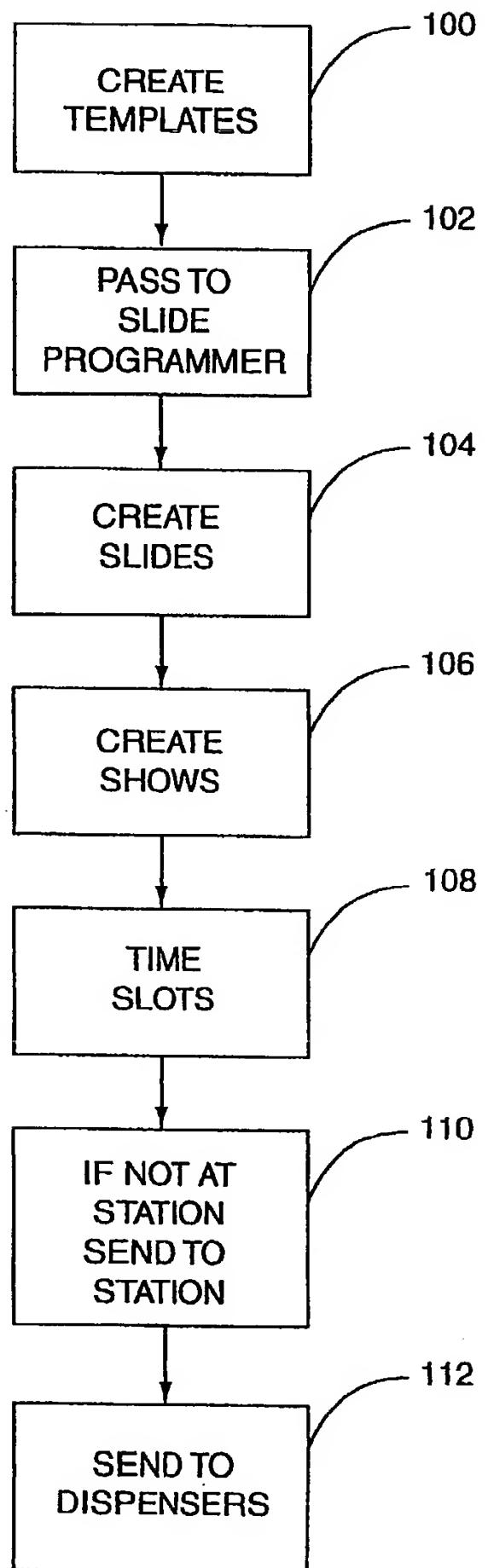


FIG. 8

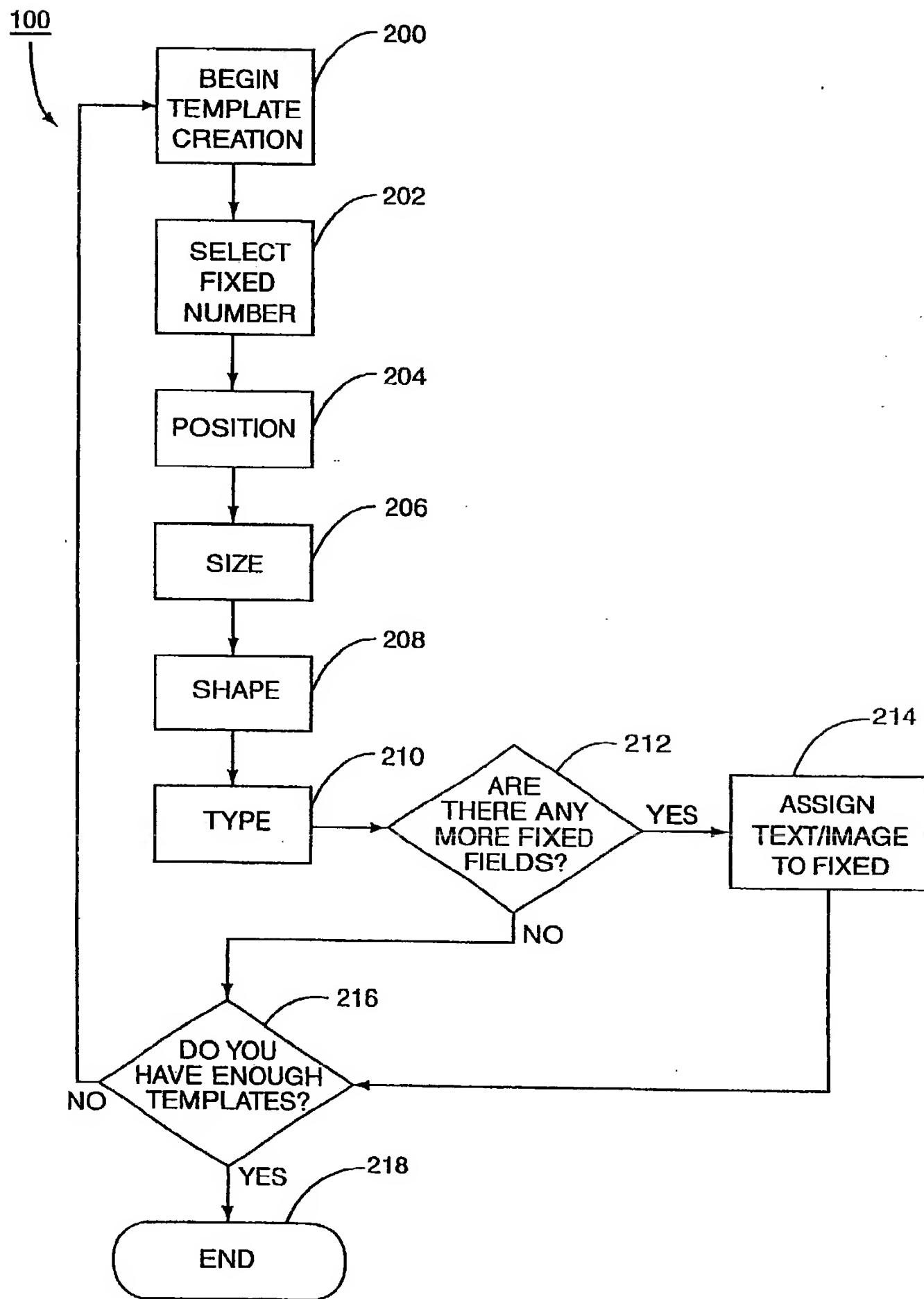


FIG. 9

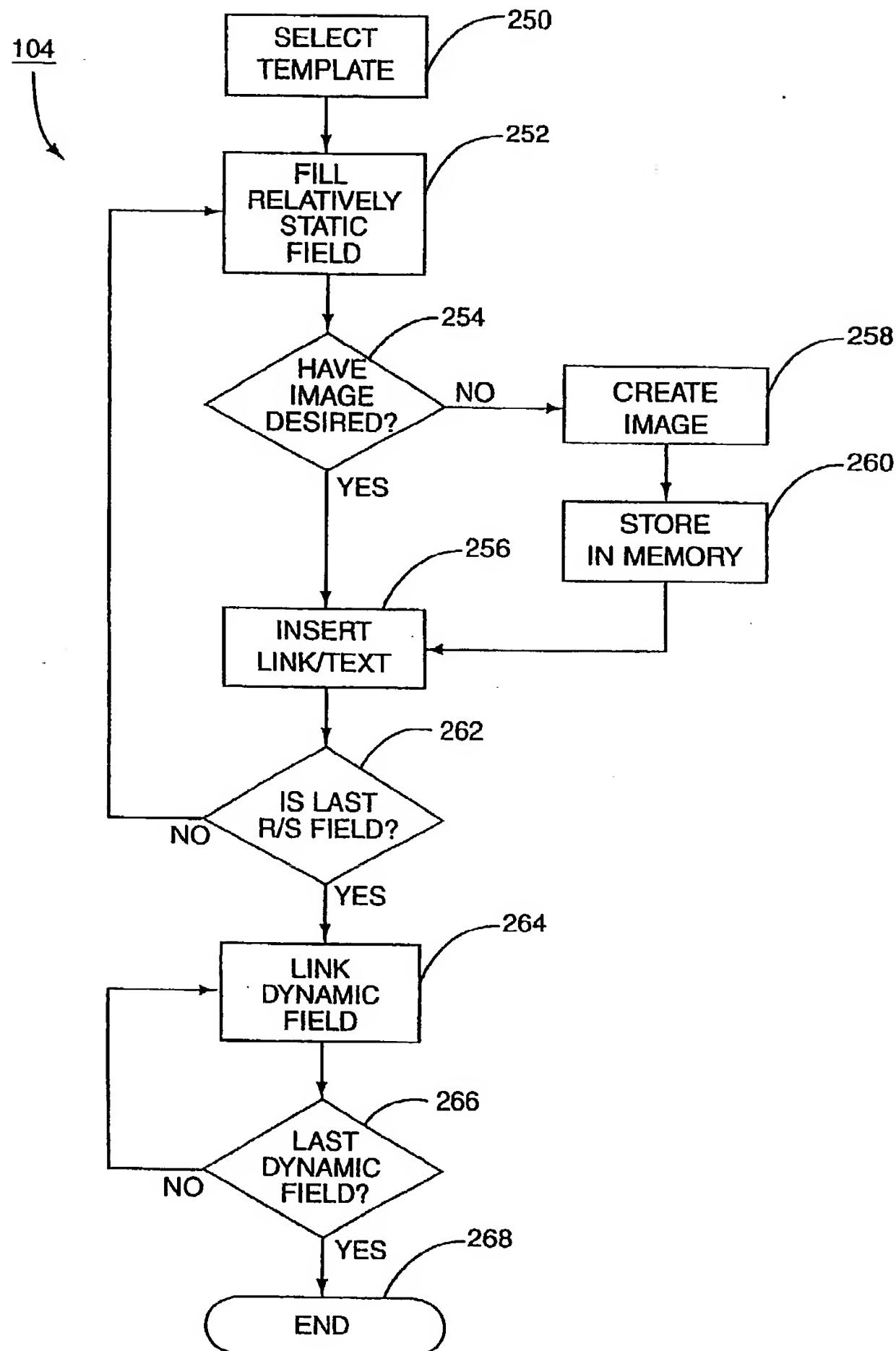


FIG. 10

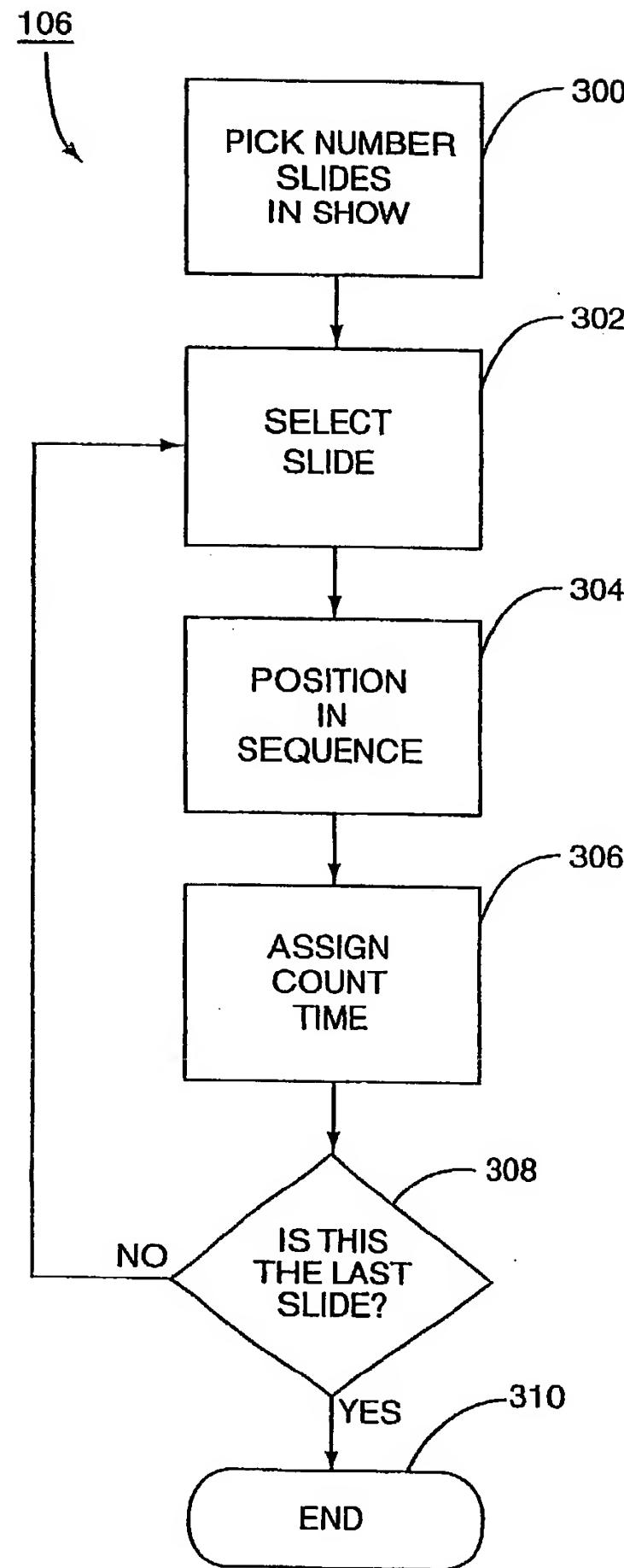


FIG. 11